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Extractor Arms.....711–714

Provide localized ventilation at the contaminant source. Extractor arms can be easily positioned to remove fumes or air-borne particulates. Often used when the fume source can not be readily moved to a conventional hood or when fumes are innocuous, e.g. bad-smelling without being chemically dangerous. May vent to outside or recirculate into the room through a filter.

Small Hoods.....715–716

These hoods enhance fume removal by partially surrounding the fume source. Some models direct forced airflow to afford further protection. Low-flow ventilation systems enable delicate operations, e.g. weighing while maintaining personal protection. May vent to outside or recirculate into the room through a filter.

Ductless Fume Hoods 716–719

These enclosures pass contaminated air through a filter(s) before returning air to the room. Use for locations where outside ventilation can not be achieved. Can eliminate very high percentages of particulates and biological hazards. Select airborne chemical levels can be reduced to safe levels as verified with monitoring protocols.

Conventional Fume Hoods 720–724

Ventilation to outside provides the most rigorous user protection, particularly for chemically dangerous fumes. Many employ "by-pass" designs, which enable consistent airflows in the enclosure for various sash positions. Low airflow designs provide user protection while minimizing energy costs.

Personal Protection and Materials Protection.....725–727

Hybrid models enable handling of sensitive materials while protecting the user. Airflow is HEPA filtered entering the cabinet and again upon exit, or discharged to the outside. Applications include manipulating dangerous but sensitive biological materials, e.g. Class II, Type A2 cabinets.

Materials Protection.....728–729

Protect your handling operation from airborne contaminants with these "miniature cleanrooms."

Accessories 729–731

Air Extraction/Exhaust Systems

Ready removal of harmful fumes—anywhere in the workplace!

A Extractor Arm with Bracket

Simply pull an extractor arm over to the source of fumes, odors, or dust. Airborne contaminants are pulled away from the operator and exhausted outside. Extractor arms flex, expand, and contract—holding their position for optimal ventilation. Polypropylene (PP) arm construction provides outstanding resistance to heat, chemicals, and abrasion. Arms expand from 33" to 48" in length and ends flare or contract to focus ventilation as needed.

What's included: Table mount/wall bracket assembly and hose clamp with cover. Swivel boom models extend arm 24" away from wall bracket.

Complete systems with swivel booms (above) and table-mounted arms (below)

Specifications & Ordering Information

Material: Polypropylene

Catalog number	Arm		Includes 2-ft swivel boom	Price
	Diameter	Length		
KH-33704-65 KH-33704-67	2½" dia	33" to 48"	No Yes	
KH-33704-60 KH-33704-62	3" dia	33" to 48"	No Yes	

Required System Components

- A Extractor arm with bracket
- B Blower

Add these options

- C Optional Y-fitting for two-arm system

B Blowers

Choose the exhaust blower suited to your need. Order optional Y-fitting to adapt two extractor arms to a blower. Optional silencer for 1/2- and 3/4-hp blowers reduces noise by 3 to 4 dB(A). Alternative blowers are available for excessively corrosive fumes. Contact Cole-Parmer Applications for blower selection assistance and guidance regarding adaptive fittings and hosing connections.

What's included: inlet and outlet collars and wall bracket.

33704-75

Specifications & Ordering Information

Power: 115 VAC, 60 Hz, single phase

Catalog number	Description	Collar diameter		Air volume	Noise level (at 10 ft)	Price
		Inlet	Outlet			
KH-33704-75	350 watt blower	6"	5"	350 cfm	65 dB(A)	
KH-33704-80*	½ hp blower	5"	4"	600 cfm	70 dB(A)	
KH-33704-85*	¾ hp blower	5"	5"	800 cfm	71 dB(A)	

*Also available as 3-phase model. Contact our Application Specialists for details.

C Accessories

KH-33704-55 **Y-fitting** for 2½" dia extractor arm, 5" outlet

KH-33704-57 **Y-fitting** for 3" dia extractor arm, 5" outlet

KH-33704-87 **Silencer** for 33704-80 and 33704-85

Mini Fume Extractor

09004-10

Localized fume removal—mounts to your desk, wall, or ceiling for venting fumes to the outside

This mini fume extractor has a compact, swing-arm design that makes it ideal for use in small areas. All parts exposed to the fumes are constructed of durable polypropylene. Additionally, the fan is covered with a chemical-resistant epoxy coating.

What's included: an adjustable three-joint arm and a swiveling table-mount bracket, a hood with a built-in halogen lamp, control box, fan, 12 ft of PVC hose, reducer, two hose clamps, and required connections. Power cord not included.

Specifications & Ordering Information

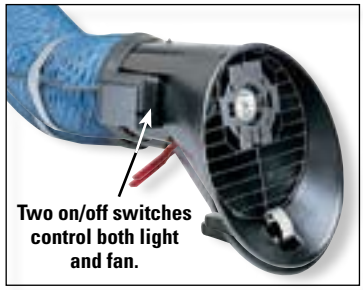
Catalog number	Arm length	Air velocity	Power	Price
KH-09004-10	37"	80 cfm	120 VAC, 50/60 Hz	

KH-09004-75 **Bracket** for wall/ceiling mounting. Two brackets are required for ceiling mounting **/ea**

High-Efficiency Fume Extractor Arms

Up to 650-cfm air capacity for particles, smoke, and dust

Fume extractor arms are perfect for welding booths and other industrial applications requiring large air capacities. Arms come in four lengths: 7 ft, 10 ft, 14 ft, and telescopic. Telescopic arms measure 34" when retracted, 5 ft when fully extended. Telescopic and 7-ft arms are suitable for small work areas; 10-ft and 14-ft arms are best for wider work areas. Specially designed friction joints allow hoods to be positioned at any point within the work area. Arms are supported by a 360° swivel elbow for unlimited maneuverability. Maximum operating temperature is 158°F (70°C). Assembly is required for all models.



Two on/off switches control both light and fan.

Fume extractor arm 33702-12 includes the light package.

Required *System* Components

- Fume extractor arm
- Fan
- Wall mounting bracket

The 7-ft, 10-ft, and 14-ft arms include 10" x 12" oval polycarbonate hood with handle and damper, and 6¼" OD PVC fiberglass-reinforced hose. Telescopic arms include 14" diameter aluminum hood, and 6¼" OD PVC fiberglass-reinforced hose.

Order models with light package for improved work area illumination. Light package includes halogen lamp, protective grill (33702-10, -12, and -14 only), and hood-mountable switches for on/off control of lamp and fan. Lamp operates on 115 VAC, 60 Hz.

A ½-hp or 1-hp fan and wall mounting bracket are required to complete your system—order separately below.

Telescopic arm 33702-08

Specifications & Ordering Information

Catalog number	Arm		Maximum air velocity	Power		Price
	Diameter	Length		VAC	Hz	
Fume extractor arm only						
KH-33702-00 KH-33702-02 KH-33702-04 KH-33702-08	6¼"	7 ft 10 ft 14 ft Telescopic (34" to 5 ft)	650 cfm	—		
Fume extractor arm with light package						
KH-33702-10 KH-33702-12 KH-33702-14 KH-33702-18	6¼"	7 ft 10 ft 14 ft Telescopic (34" to 5 ft)	650 cfm	115	60	

KH-33702-50 **Fan,** ½ hp. Air capacity: 300 to 400 cfm. 115/230 VAC, 60 Hz

KH-33702-60 **Fan,** 1 hp. Air capacity: 550 to 650 cfm. 115/230 VAC, 60 Hz

KH-33702-90 **Wall mounting bracket**

Wall mounting bracket 33702-90 shown with fan 33702-50

GO to page(s) 14

SafeAir® Gas Monitoring Badges provide an immediate visual indication when a specific chemical hazard is present. The low-cost, disposable chemical detector badges allow you to perform daily exposure screening. Detect carbon monoxide, chlorine, formaldehyde, mercury, and more. Badges require minimal training to use and require no calibration, extra equipment, or analysis. Badges attach easily to shirts or lab coat collars.

Exclamation mark warns of the presence of targeted hazard.

Air Cleaning Systems

Two self-supporting extractor arms are ideal for two-station setups

These air cleaning systems capture and remove smoke, dust, mist, and fumes before they enter the work area, then recirculate clean air back into the workplace. The systems are self-contained, with two 3" dia self-supporting extractor arms made of heat-, chemical-, and abrasion-resistant polypropylene; end of arms flare up to 4½" dia. Ideal for two-station setups, or use the included inlet cap for single-arm use. Choose from benchtop or portable cleaners with 200 or 350 W blowers, then complete your system with filters sold separately at right.

Benchtop system 33703-00

Benchtop Air Cleaning System is a two-stage filtration system ideal for most contaminant problems. The system includes two sets of mounting brackets; mount to your table or benchtop with the cartridge filter extending above or below the surface.

Portable Air Cleaning System can be used as a two- or three-stage filtration system. The cleaner is mounted to a portable cabinet—perfect for general applications and hard-to-reach areas.

Portable system 33703-10

Specifications & Ordering Information

3 year warranty

Arms
Length: 33" to 48"
Flare: 2" to 4½" dia

Dimensions
Benchtop: 12"W x 10"H x 6"D
Portable: 20½"W x 36¾"H x 13"D

Noise level*: 64 dB(A) at 4 ft, 61 dB(A) at 12 ft

Catalog number	Style	Air velocity, ft/min		Power			Price
		Single extractor arm	Two extractor arms	VAC	Hz	Watts	
KH-33703-00 KH-33703-25	Benchtop	2800 3800	1800 2250	115	60	200 350	
KH-33703-10 KH-33703-30	Portable	2800 3800	1800 2250	115	60	200 350	

*Ratings are based on a clean standard filter cartridge.

Filter Packages

High-Efficiency Filters capture smoke and dust—ideal if you mix dry chemicals, sand, grind, or do light welding or soldering. Prefilter is 30 to 35% efficient†, high-efficiency cartridge is 96.5% efficient‡.

HEPA Filters capture soldering fumes and vapors that contain lead. Prefilter is 30 to 35% efficient†; HEPA filter is 99.97% efficient**.

Final Adsorption Carbon Module captures volatile solvents, touch-up paint fumes, and other noxious odors. Available in combination with primary high-efficiency or HEPA filters (33703-02 and -04), or use as a final stage filter for portable air cleaning system 33703-10.

Catalog number	Description	Price
Primary filter packages		
KH-33703-01	High-efficiency filter with prefilter	
KH-33703-02	High-efficiency filter with carbon module	
KH-33703-03	HEPA filter with prefilter	
KH-33703-04	HEPA filter with carbon module	
KH-33703-05††	Final adsorption carbon module	
Replacement filters		
KH-33703-06	High-efficiency filter with prefilter	
KH-33703-07	Activated carbon refill for 33703-04, -05	
KH-33703-08	Activated carbon refill for 33703-02	
KH-33703-09	HEPA filter	
KH-33703-12	Prefilters for HEPA filter, pack of six	

†Efficiency according to ASHRAE 52 test method ‡Efficiency using SAE fine test dust
**Efficiency using 0.3 µm D.O.P. test
††For use with model 33703-10 portable system only.

Extractor Systems Kits 2000 and 3000

Draw away fumes at their source

- Easy adjustment of extractor arm position
- Systems filter air to remove particulates and reduce organics

Use these adaptable extractor systems to prevent user exposure to fumes and airborne particulates. Extractor arms move flexibly but position firmly for maximum fume removal without impeding user operations. The system fan draws fumes through filter containing activated charcoal before returning air to the room. Control airflow velocity up to 88 cfm using a remote control positioned close to the user. Use in applications including gluing, soldering, and removal of select solvents.

Extractor Kit 2000 has a three-foot polypropylene (PP) extractor arm ending in a small hood.

What's included: table bracket and 99.97% efficient filter containing four pounds of activated charcoal media for absorption of airborne organics (e.g. solvents).

Extractor Kit 3000 has a four-foot anodized aluminum extractor arm (3" diameter) with polypropylene joints.

What's included: bench bracket and 99.97% efficient filter containing four pounds of activated charcoal media for absorption of airborne organics (e.g. solvents).

Extraction kit 2000 model 33702-20

Specifications & Ordering Information

Catalog number	System	Power			Price
		VAC	Hz	Watts	
KH-33702-20 KH-33702-30	Extractor kit 2000 Extractor kit 3000	120	60	170	

KH-33702-25 **Replacement filters,** for both kits

LABCONCO Fume Adsorbers

Trap harmful xylene and toluene fumes

Fume adsorbers are designed for light-duty applications involving organic solvents, formaldehyde, ammonia, or low molecular weight amines. Fume adsorbers use carbon filtration to trap vapors so that safe, filtered air is returned to the laboratory. No outside ducting is required. These portable, low-profile enclosures fit easily on countertops with overhanging cabinets and are available in two widths.

Each fume adsorber includes a carbon filter that adsorbs vapors from organic solvents, formaldehyde, or ammonia. Features include built-in motorized impeller to provide face velocity up to 35 fpm. Adsorber has a white, dry powder epoxy-coated steel housing with perforated baffle for uniform airflow. Canopy is a clear, one-piece ⅜"-thick, shatter-resistant acrylic. Quiet operation is 58 to 63 dBA. A prewired rear-mounted auxiliary electrical receptacle has a top-mounted blower switch with circuit breaker. Work surface and base cabinet must be ordered separately. Order base cabinets on page 731. Replacement filters are sold separately below.

What's included: carbon filter (two for double-filter models), power switch, and 8-ft cord. The 115 VAC models have a three-prong plug.

Fume adsorber 09003-30

Specifications & Ordering Information

ISO 9001:2000 CERTIFIED SUPPLIER

Catalog number	Vapor	Overall dimensions (L x W x H)	Power VAC	Power Hz	Shpg wt lb (kg)	Price	Replacement filter Catalog no.	Replacement filter Price
Single-filter fume adsorbers								
KH-09003-30	Organic	23½" x 30" x 15½"	115	60	67 (30)		KH-09003-50	
KH-09003-35			230	50				
KH-09003-55	Formaldehyde		115	60	69 (31)		KH-09003-52	
KH-09003-65			230	50				
KH-09003-60	Ammonia		115	60	71 (32)		KH-09003-54	
KH-09003-70			230	50				
Double-filter fume adsorbers								
KH-09003-40	Organic	23½" x 60" x 15½"	115	60	135 (61)		KH-09003-50	
KH-09003-45			230	50				
KH-09003-75	Formaldehyde		115	60	137 (62)		KH-09003-52	
KH-09003-85			230	50				
KH-09003-80	Ammonia		115	60	139 (63)		KH-09003-54	
KH-09003-90			230	50				

Ductless Air Filter System

Excellent versatility—two systems in one!

Place this compact system to remove particles and volatile contaminants at their source. System can operate as a stand-alone hood or can filter air through twin self-supporting extraction arms for flexible fume removal. Extractor arms are made of durable polypropylene—they resist heat, chemicals, and abrasions. Order optional dolly for mobile filter unit operation or acrylic hood accessory for hood operation. Complete your system with filters sold at right.

Air filter system 33703-40 with optional acrylic hood 33703-52

Jointed arms flex and expand for two-workstation ventilation.

33703-40

What's included: one 2-ply polyester ring-panel prefilter, one filter hold-down grid, one inlet grate, one inlet cover for two extractor arms, two extractor arms, two arm-hood attachments, and one arm-hole cap.

Specifications & Ordering Information

3 year warranty

Cabinet dimensions
Horizontal position: 12½"W x 12½"H x 19½"D
Vertical position: 12½"W x 19½"H x 12½"D

Exhausts to: inside

Noise level*: 50 to 62 dB at 12 ft, 61 to 64 dB at 4 ft

Catalog number	Color	Arm Dia.	Arm Length	Air volume (fan performance)	Power VAC	Power Hz	Power Watts	Power Phase	Shpg wt lb (kg)	Price
KH-33703-37	White	2" to 3¾"	36" to 53"	350 cfm at 0.5", 240 cfm at 2", 100 cfm at 2.75"	120	60	350	Single	1120.00	
KH-33703-38				250 cfm at 0.5", 180 cfm at 1.5", 75 cfm at 1.9"	120	60	200	Single	1030.00	
KH-33703-39	Grey			350 cfm at 0.5", 240 cfm at 2", 100 cfm at 2.75"	120	60	350	Single	1120.00	
KH-33703-40				250 cfm at 0.5", 180 cfm at 1.5", 75 cfm at 1.9"	120	60	200	Single	1030.00	

*Actual measurements are dependent upon inlet/filter combinations.

KH-33703-50 **Dolly** with casters
KH-33703-52 **Acrylic hood,** 6" deep
KH-33703-54 **Adjustable acrylic hood** with limit covers

Filter Packages

High-Efficiency Filters capture smoke and dust—ideal if you mix dry chemicals, sand, grind, or do light welding. If you use solvents or paint in the same process, choose a combination high-efficiency filter with refillable 2"-thick carbon module. Filter is 95% efficient.

HEPA Filters capture soldering fumes and vapors that contain lead. If you use solvents or paint in the same process, choose a combination HEPA filter with refillable 2"-thick carbon module. Filter is 99.97% efficient.

Activated Carbon Filter captures volatile solvents, touch-up paint fumes, and other noxious odors. The primary refillable carbon module is 6" thick and comes with a final filter. Filter is 40 to 50% efficient.

Cat. no.	Description	Price
Primary filter packages		
KH-33703-41	High-efficiency filter	/ea
KH-33703-42	High-efficiency filter with carbon module	/ea
KH-33703-43	HEPA filter	/ea
KH-33703-44	HEPA filter with carbon module	/ea
KH-33703-45	Carbon module with final filter	/ea
Replacement filters		
KH-33703-46	Prefilters, pack of four	/pk
KH-33703-47	Activated carbon refill for 33703-45	/ea
KH-33703-48	Activated carbon refill for 33703-42, -44	/ea
KH-33703-49	Final filters, pack of 4	/pk

LABCONCO Protector® Demonstration Hoods

New

09099-48

ISO 9001:2000 SUPPLIER CERTIFIED CE ETL US

Permits close observation of procedures during educational demonstrations

- Deep 23" interior easily accommodates a variety of apparatus
- Sturdy work cart lets you easily transport hood from classroom to classroom

Patented Clean-Sweep™ air foil allows air to sweep the work surface for maximum containment. Airflow openings pull inflow air from under the air foil so that clean air continually flows through the air foil creating a constant barrier of protection from contaminants. Upper containment sash foil bleeds air into the enclosure to direct concentrations of contaminants away from the operator's breathing zone. Upper dilution air supply introduces room air at the top of the sash to dilute concentrations in the upper chamber and bathes the back of the sash with clean air. Clear rear baffle directs air streams to the back of the interior for removal through the exhaust connection.

Tempered safety glass front sash, sides, rear baffle, and top offer excellent 360° visibility, ambient light and protection. Glass provides better fire, scratch and corrosion resistance than acrylic. The 8"H sash opening limits exhaust demand, conserves costly tempered room air, and requires a smaller remote blower than most fume hoods. The 2" x 10" rectangular exhaust collars on the top and bottom allow the hood to be connected to ductwork for exhausting to the outside or to a FilterMate™ portable exhauster (included) for filtered removal of fumes and/or particulates. Using the bottom exhaust collar keeps ductwork hidden, maximizing room visibility. Model 09099-58 is a hood only and requires connection to a remote blower, hose exhaust, or FilterMate portable exhauster. See page 729–731 for all accessories.

What's included: Models 09099-46, -48, -50, -56 have mobile steel work cart with four casters; FilterMate portable exhauster with two filters, hose, and adapter to connect to hood; and a three-wire power cord with plug.

Specifications & Ordering Information

Catalog number	Exhaust volume (fpm)	Enclosure height	Sash opening	Dimensions (L x W x H)	Power			Shpg wt lb (kg)	Price
					VAC	Hz	Amps		
KH-09099-58	185	22 3/4"	8"	36" x 29" x 22 ¾"	—	—	—	75 (34)	
KH-09099-46				39" x 32" x 58"	115	60	10	125 (57)	
KH-09099-50					230	50/60	5		
KH-09099-48	230	32"	10"	39" x 32" x 68"	115	60	10	135 (61)	
KH-09099-56					230	50/60	5		

Fume and Particulate Removal Workstations

Workstation 33705-10 shown with stereo microscope 48403-00 (not included).

Five filter options let you customize for your application

Protect yourself from harmful fumes and particulates with these portable ductless workstations. Workstations accommodate five different filters in any combination up to a 7" thickness. For particulate removal, order a prefilter for 60% efficient removal of particulates down to 5 µm and a HEPA filter for 99.99% efficiency down to 0.3 µm.

Select a fume filter for your specific application: charcoal filter (for odor removal), formaldehyde filter, or ammonia gas filter from table at right. Workstations provide a face velocity up to 100 ft/minute, adjustable via front control knob.

All models feature an acrylic hinged front panel; models 33705-10 and -15 have a 7" x 7" cutout in the acrylic panel for a microscope. Workstations measure 40½"W x 22"H x 19"D overall; work area measures 25"W x 15¾"H x 16"D.

What's included: workstation lamp with separate on/off switch and 4-ft power cord with three-prong plug.

Specifications & Ordering Information

Catalog number	Model	Power		Shpg wt lb (kg)	Price
		VAC	Hz		
KH-33705-00	Standard	110	60	75 (34.1)	
KH-33705-05		220	50		
KH-33705-10	Standard with microscope cutout	110	60	75 (34.1)	
KH-33705-15		220	50		

Cole-Parmer® Benchtop Fume Hoods

Ductless fume hood 33730-10

Space-saving design for light-duty use

Benchtop fume hoods are designed to collect and exhaust low-level corrosive vapors, heat, steam, fumes, and odors. Interior fiberglass material provides good chemical resistance. Recessed resin work surfaces contain spills.

What's included: flexible ductwork (3" dia x 12 ft L) and a light. The ductless model features a carbon filter for your small-scale routine operations. Both models come with an exhaust blower (121 cfm at 0.4" static pressure) and an 8-ft cord with plug. Order replacement carbon filter for ductless fume hood below table.

Specifications & Ordering Information

UL CE

Catalog number	Description	Dimensions (W x H x D)	Power		Shpg wt lb (kg)	Price
			VAC	Hz		
KH-33730-00	Ducted	24" x 24" x 15"	115	60	45 (20.5)	
KH-33730-05			220	50		
KH-33730-10	Ductless	24" x 24" x 15"	115	60	57 (25.9)	
KH-33730-15			220	50		

KH-33730-50 **Replacement carbon filter** for ductless benchtop fume hood models 33730-10 and -15. Pack of 2

Accessories for Fume and Particulate Removal Workstations

Catalog number	Description	Thickness	Shpg wt lb (kg)	Price
Filters				
KH-33705-60	Charcoal filters	1.5"	13 (5.9)	
KH-33705-70	Formaldehyde filters	1.5"	13 (5.9)	
KH-33705-80	Ammonia gas filters	1.5"	16 (7.3)	
KH-33705-90	Prefilters	1.0"	6 (2.8)	
KH-33705-50	HEPA filter	4.0"	5 (2.3)	

Acrylic Balance Enclosure

Protects you from dust, particulates, and organic vapor

44011-00

This enclosure is ideal for weighing, measuring, pouring, or mixing samples that may produce hazardous fumes or airborne solids. Variable speed blower allows continuous adjustment of airflow and face velocity.

Front hinged panel is constructed of clear polycarbonate and allows easy access to work area. Aluminum framing with clear acrylic sides, back, and top allow for full light penetration. Order the optional fluorescent light kit if additional lighting is needed. Optional audible alarms notify you in the event of an airflow failure or a blocked filter.

Supplied HEPA filter removes particles down to 0.3 microns at 99.99% efficiency. When working with large particulate samples, purchase a prefilter (at right) to prevent premature clogging of the HEPA filter. Optional carbon filters are available for the adsorption of specific vapors; order separately at right.

What's included: 6-ft power cord with three-prong plug.

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See the "Life Science" section on pages 813–866 for our full line of immunology, molecular biology, and tissue culture products.

Accessories

Catalog number	Filter description	Qty/ bx	Price/ bx
KH-44011-60	Activated carbon filter, 2" deep	3	
KH-44011-62	Activated carbon filter, 0.5" deep	5	
KH-44011-64	Replacement HEPA filter	1	
KH-44011-66	Dacron® prefilter	5	
KH-44011-68	Aluminum mesh prefilter		
KH-44011-70	Acid gas filter	3	
KH-44011-72	Ammonia gas filter		
KH-44011-74	Formaldehyde filter	3	
KH-44011-76	Mercury filter		
KH-44011-78	Radioactive iodine filter		

KH-44011-50 **Alarm,** airflow

KH-44011-52 **Alarm,** blocked filter

KH-44011-56 **Fluorescent light kit.** Includes white acrylic housing, fluorescent bulb, and electrical wiring connections

Specifications & Ordering Information

Rated fan performance: 530 cfm

Noise level: 68 dB at 3 ft

Cabinet dimensions: 30"W x 34½"H x 22"D

Work area: 28"W x 19"H x 21"D

Catalog number	Description	Power	Shpg wt	Price
KH-44011-00 KH-44011-05	Acrylic balance enclosure	115 VAC 230 VAC	80 lb (36.3 kg)	

LABCONCO Purifier® Class I Biosafety and HEPA-Filtered Enclosures

New

Protect you from biological hazards requiring Biosafety Level 1, 2, and 3 containment

- EPA filter removes 99.99% of particulates down to 0.3 µm

Purifier enclosures protect you and your laboratory environment—they offer an economical alternative to Class II laminar flow cabinets when your applications do not require product protection. The filter indicator monitors the differential pressure across the filter and lets you know when to change the filter. Side panels and pivoting, angled sash are made of tempered safety glass; sash pivots upward 20" for easy cabinet loading. All units are shipped fully assembled. Order a spill-containing work surface and other accessories at right.

Class I Enclosures protect the user from agents that require Biosafety Level 1, 2, or 3 containment but no product protection. These enclosures include an ultraviolet light that may be used in conjunction with surface disinfection to ensure thorough decontamination.

HEPA-Filtered Enclosures feature fluorescent lamp but do not include a UV light. They protect the user from hazardous chemical powders, dust, and allergens in diverse applications ranging from screening suspicious mail to weighing drug ingredients.

33507-00

KH-33505-50 **Work surface,** 24"W

KH-33505-52 **Work surface,** 36"W

KH-33506-50 **Replacement HEPA filter,** 24"W

KH-33506-52 **Replacement HEPA filter,** 36"W

KH-33506-60 **Exhaust connection kit,** 24"W

KH-33506-62 **Exhaust connection kit,** 36"W

KH-33506-70 **Remote blower kit;** 115 VAC, 60 Hz

KH-33506-72 **Remote blower kit;** 230 VAC, 50 Hz

Specifications & Ordering Information

ISO 9001:2000 SUPPLIER CERTIFIED

Catalog number	Exhaust volume (cfm)	Dimensions (W x H x D)	Power			Shpg wt lb (kg)	Price
			VAC	Hz	Amps		
Class I enclosures							
KH-33507-00 KH-33507-02	110 to 155	23¾" x 37" x 28¾"	115 230	60 50	15 10	125 (56.7)	
KH-33507-04 KH-33507-06	165 to 230	35¾" x 37" x 28¾"	115 230	60 50	15 10	165 (74.9)	
KH-33507-08 KH-33507-10	220 to 310	47¾" x 37" x 28¾"	115 230	60 50	15 10	195 (88.5)	
HEPA-filtered enclosures							
KH-33507-12 KH-33507-14	110 to 155	23¾" x 37" x 28¾"	115 230	60 50	15 10	125 (56.7)	
KH-33507-16 KH-33507-18	165 to 230	35¾" x 37" x 28¾"	115 230	60 50	15 10	165 (74.9)	
KH-33507-20 KH-33507-22	220 to 310	47¾" x 37" x 28¾"	115 230	60 50	15 10	195 (88.5)	

MISONIX Downflow Ductless Workstation

Unique downflow design draws fumes, odors, and particulates away from the operator's breathing zone

This workstation protects you from potentially hazardous fumes, vapors, and particulates when working with heavy solvents or powders. The powerful low-speed fan constantly draws air down past your sample, through a perforated stainless steel work surface and up through the rear plenum to a series of filters. Work area is illuminated by integral fluorescent light. Visual alarms indicate when filters approach saturation and need replacement. Removable stainless steel tray allows for easy cleaning.

What's included: one prefilter; order other filters specific to your application at right.

The airflow of downflow workstation 33714-00

Specifications & Ordering Information

Catalog number	Dimensions		Power	Shpg wt lb (kg)	Price
	Work surface	Overall			
KH-33714-00 KH-33714-05	25"W x 19"H	28"W x 32"H x 24"D	115 VAC 220 VAC	120 (54)	

Workstation Filters

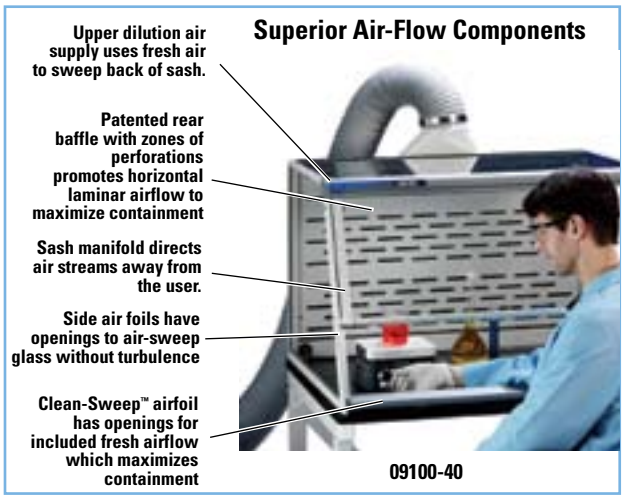
Catalog number	Description	Shpg wt	Price/ea
KH-33714-50 KH-33714-52 KH-33714-54	Hydrocarbon Formaldehyde Ammonia	24 lb (11 kg)	
KH-33714-56 KH-33714-58 KH-33714-64	Sulfur Mineral acids HEPA	24 lb (11 kg)	

KH-33714-66 **Replacement prefilters.** Pack of 10

LABCONCO XPert™ Balance Enclosures and XVS Ventilation Stations

Low air-flow technology for motion-sensitive operations

These sophisticated balance enclosures combine air-flow components to produce a safe working environment without compromising the integrity of your manipulations. Volatile substances are handled without airborne exposure to powders, sublimates, and fumes. Cabinet design also minimizes electrostatic effects and vibration to enable precise weighing results while eliminating the need for repeated enclosure clean ups. Exhaust air to outside or return air to room through FilterMate Portable Exhauster.


Superior Air-Flow Components
Upper dilution air supply uses fresh air to sweep back of sash.
Patented rear baffle with zones of perforations promotes horizontal laminar airflow to maximize containment
Sash manifold directs air streams away from the user.
Side air foils have openings to air-sweep glass without turbulence
Clean-Sweep™ airfoil has openings for included fresh airflow which maximizes containment

09100-40

09101-00

Durable enclosures are constructed of epoxy-coated steel and aluminum for maximum resistance to corrosion and abrasion. Tempered safety glass sides, top, and front sash offer excellent visibility, ambient light, and protection. Glass is preferred over acrylic for optical clarity and resistance to solvent-induced hazing and marring. On 22"H models, ergonomic 20° angled sash operates glare-free with an 8" opening and pivots up to lock in position for 20" clearance loading. Design and construction create unified resistance to vibration, electrostatic charges, and fire. Two utility ports for cords, cables, and tubing. Select 22" or 31¼" interior enclosure height. All models require a remote blower or FilterMate Portable Exhauster, a work surface, and a supporting base. See Accessories on pages 729–731.

XPert™ Balance Enclosures provide a safe, stable environment for weighing and other sensitive manipulations. An integrated monitoring and alarm system provides total assurance that air is actually flowing at user-designated minimum velocity. Choose from Guardian Jr. model (alarm capability only) or Guardian 1000 (continuous digital flow rate readout with alarm). Monitors are mounted at the back of the enclosure. **XVS Ventilation Stations** provide the same operating environment as XPert Balance Enclosures. Recommended for applications where airflow velocity is assured, e.g. with a nearby dedicated FilterMate unit or for non-critical outside exhaust applications. All models are shipped fully assembled. Cord and plug are not included.

Specifications & Ordering Information

ISO 9001:2000 SUPPLIER CERTIFIED CE

Type	Monitor	Dimensions (W x H x D)		Catalog number		Price
		Interior	Overall	115 VAC	230 VAC	
Xpert Balance Enclosures						
2 ft	Guardian Jr. Guardian 1000	22¾" x 22" x 23"	24" x 28¾" x 28⅞"	KH-09101-00 KH-09101-02	KH-09101-05 KH-09101-07	
3 ft	Guardian Jr. Guardian 1000	34¾" x 22" x 23"	36" x 28¾" x 28⅞"	KH-09101-10 KH-09101-11	KH-09101-16 KH-09101-17	
4 ft	Guardian Jr. Guardian 1000	46¾" x 22" x 23"	48" x 28¾" x 28⅞"	KH-09101-20 KH-09101-22	KH-09101-25 KH-09101-27	

Type	Dimensions (W x H x D)		Catalog number	Price
	Interior	Overall		
XVS Ventilation Stations				
2 ft	22¾" x 22" x 23" 22¾" x 31¼" x 23"	24" x 22¾" x 28⅞" 24" x 32" x 28⅞"	KH-09100-30 KH-09100-32	
3 ft	34¾" x 22" x 23" 34¾" x 31¼" x 23"	36" x 22¾" x 28⅞" 36" x 32" x 28⅞"	KH-09100-40 KH-09100-42	
4 ft	46¾" x 22" x 23" 46¾" x 31¼" x 23"	48" x 22¾" x 28⅞" 48" x 32" x 28⅞"	KH-09100-50 KH-09100-52	

Portable Ductless Fume Hoods

Excellent for filter removal of organic vapors, acid vapors, and particles

- Completely portable—relocate and reinstall in minutes
- Meets filtration standard NF X 15-211 Class II—independently tested and verified

These ductless hoods are self-contained and completely mobile. Ductless hoods efficiently recirculate highly purified air and release no hazardous or toxic vapors to the outside. Since they do recirculate room air, you experience considerable savings in energy costs as no cooled or heated air is lost to the outside environment. Ductless hoods also feature an air velocity meter allowing you to verify the face velocity of the moving air at a glance.

An hour counter/timer guards user safety and ensures operational efficiency. Every 60 hours of operation the timer reminds you to check the filters—helps keep an accurate and useful log of hood use and filter life. A sampling port for testing the exhausted air makes filter saturation tests quick and convenient.

Hoods are available in two sizes. The 33664-series hoods measure 31½"W x 28½"H x 22¼"D, the 33665-series hoods measure 31½"W x 38"H x 24 9/16"D. Both sizes are available with four filter options; filters capture either organic or acid vapors, and come with or without a particle filter. Available options include a fluorescent lighting fixture, a filter saturation detector, and tempered glass work surface/spill trays (order under "Accessories" below right). **Note:** Saturation detector is factory installed—you must order at the same time you order the hood.

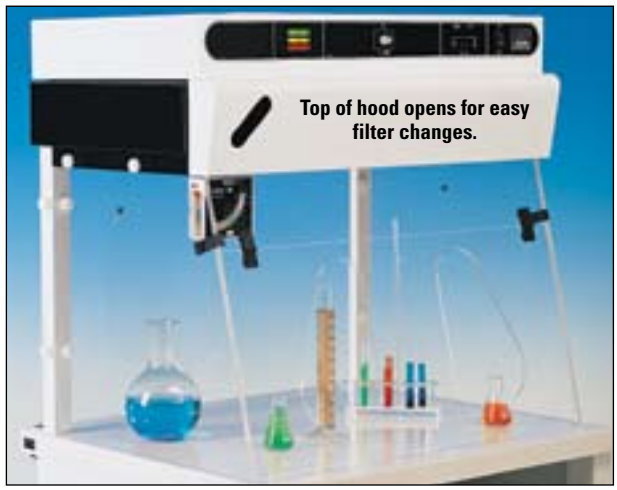
What's included: an 8-ft cord with a three-prong plug (European plug on 230 VAC models).

Technical info

Benefits of a ductless fume hood...

- **No ductwork necessary—locate your hood anywhere; ideal where installing ductwork is an expensive option.**
- **Mobility—use hoods in multiple locations; hoods can sit on a portable cart or a stationary bench.**
- **Energy savings—filtered air is returned to the room; room temperature is not compromised or disposed.**

33665-series measures 31½"W x 38"H x 24 9/16"D



33664-series measures 31½"W x 28½"H x 22¼"D

Specifications & Ordering Information

Catalog number	Height	Average face velocity	Power VAC	Power Hz	Shpg wt lb (kg)	Price
Ductless fume hoods with organic vapor filter						
KH-33664-00 KH-33664-05	28½"	107 ft/min	115 230	60 50	124 (56.3)	
KH-33665-00 KH-33665-05	38"	107 ft/min	115 230	60 50	116 (52.7)	
Ductless fume hoods with organic vapor/particle filter						
KH-33664-10 KH-33664-15	28½"	103.5 ft/min	115 230	60 50	101 (45.9)	
KH-33665-10 KH-33665-15	38"	104.3 ft/min	115 230	60 50	116 (52.7)	
Ductless fume hoods with acid vapor filter						
KH-33664-20 KH-33664-25	28½"	107 ft/min	115 230	60 50	101 (45.9)	
KH-33665-20 KH-33665-25	38"	107 ft/min	115 230	60 50	116 (52.7)	
Ductless fume hoods with acid vapor/particle filter						
KH-33664-30 KH-33664-35	28½"	103.5 ft/min	115 230	60 50	101 (45.9)	
KH-33665-30 KH-33665-35	38"	104.3 ft/min	115 230	60 50	116 (52.7)	

Accessories

KH-33665-60 **Optional lighting fixture,** 11-watt fluorescent. Attaches to either side of the fume hood

KH-33665-90 **Optional filter saturation alarm.** Factory installed, must be ordered with hood

KH-33664-95 **Optional tempered glass work surface/ spill tray** for 33664-series fume hoods

KH-33665-95 **Optional tempered glass work surface/ spill tray** for 33665-series fume hoods

Replacement Filters

Catalog number	Filter type	Price
KH-33665-80	Organic vapor	
KH-33665-86	Organic vapor/particulate	
KH-33665-82	Acid vapor	
KH-33665-88	Acid vapor/particulate	

GO to page(s) 8–32

To monitor filter use order a toxic gas detector in our "Air/Gas Analysis" section on pages 8–32.

Self-Monitoring Ductless Fume Hoods

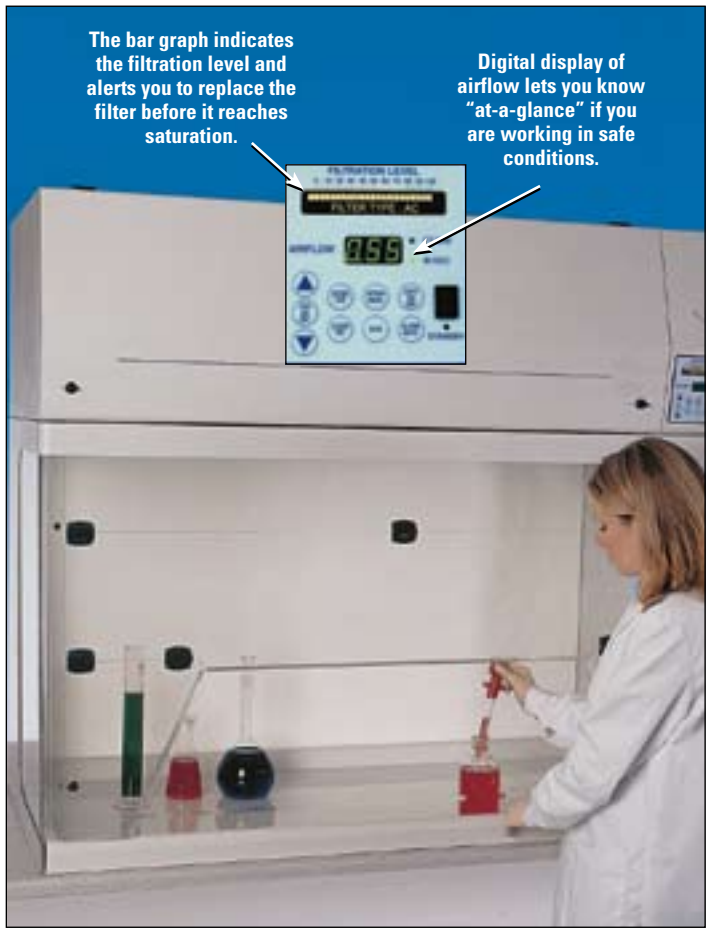
Airflow display lets you know at a glance that you're working in a clean-air environment

- Audible and visible alarms signal when to replace the filters
- Exceeds OSHA and ANSI standard Z9.5

Get full protection from hazardous fumes, vapors, odors, particles, and contaminants with these self-monitoring ductless fume hoods. The advanced monitoring and filter system act with synergy to ensure a safe working environment. This advanced monitoring system continuously senses both hydrocarbon output and air velocity levels. The LED screen displays airflow, filter type and application, and filter saturation level and lets you know immediately if you are working in safe conditions. Audible and visible alarms alert you to reduced airflow, filter condition, blower failure, and maximum time allowance.

The filter system incorporates a prefilter, a primary filter, and a secondary "safety" filter to provide added protection. The prefilter protects the primary and secondary filters from dust particles, smoke, acid mists, and other submicron particles. Choose from four filter types in the tables below. The activated **hydrocarbon** filter provides a high degree of absorbency—ideal for organic vapors, odors and fumes, including alcohols, acetone, xylene, and methylene chloride. Choose the **mineral acid** filter for hydrochloric and nitric acids and the **formaldehyde** filter for formaldehyde and glutaraldehyde. The **HEPA** filter has an efficiency rating of 99.997% for collecting particles down to 0.3 microns—use for containment of particles such as toxic powders, asbestos, and lead.

What's included: a prefilter, two 17-watt fluorescent lights, and a deep chemical-resistant fiberglass spill tray. Hoods measure 48"H x 28"D.


The bar graph indicates the filtration level and alerts you to replace the filter before it reaches saturation.
Digital display of airflow lets you know "at-a-glance" if you are working in safe conditions.

33713-20

Specifications & Ordering Information

2 year warranty

Catalog number	Hood size	Face velocity	Power VAC	Power Hz	Shpg wt lb (kg)	Price
KH-33713-00 KH-33713-05	30-inch	125 ft/min	115 220	60 50	200 (90.7)	
KH-33713-10 KH-33713-15	42-inch	125 ft/min	115 220	60 50	220 (99.8)	
KH-33713-20 KH-33713-25	54-inch	125 ft/min	115 220	60 50	250 (113)	

KH-33710-90 Replacement 30- and 42-inch fume hood prefilter. Pack of 6

KH-33710-92 Replacement 54-inch fume hood prefilter. Pack of 6

Required System Components

- Fume hood
- Primary filters
- Secondary filters

Technical info

Ductless fume hoods are not recommended where large quantities of contaminants are produced, such as in acid digestion or evaporation of solvents to dryness; with toxic substances; or where unknown reactions are carried out. For these applications, use a ducted hood.

Filters for 30-Inch Fume Hoods

Filter type	Primary filters (one required) Cat. no.	Shpg wt	Price/ea	Secondary "safety" filters (one required) Cat. no.	Shpg wt	Price/ea
Hydrocarbon Mineral acid	KH-33713-50 KH-33713-60	23 lb (10.5 kg) 30 lb (13.7 kg)		KH-33713-55 KH-33713-65	9 lb (4.1 kg) 15 lb (6.9 kg)	
Formaldehyde HEPA	KH-33713-70 KH-33713-80	30 lb (13.7 kg) 15 lb (6.9 kg)		KH-33713-75 KH-33713-85	15 lb (6.9 kg) 15 lb (6.9 kg)	

Filters for 42-Inch Fume Hoods

Filter type	Primary filters (two required) Cat. no.	Shpg wt	Price/ea	Secondary "safety" filters (two required) Cat. no.	Shpg wt	Price/ea
Hydrocarbon Mineral acid	KH-33713-50 KH-33713-60	23 lb (10.5 kg) 30 lb (13.7 kg)		KH-33713-55 KH-33713-66	9 lb (4.1 kg) 15 lb (6.9 kg)	
Formaldehyde HEPA	KH-33713-70 KH-33713-80	30 lb (13.7 kg) 15 lb (6.9 kg)		KH-33713-76 KH-33713-86*	15 lb (6.9 kg) 15 lb (6.9 kg)	

Filters for 54-Inch Fume Hoods

Filter type	Primary filters (two required) Cat. no.	Shpg wt	Price/ea	Secondary "safety" filters (two required) Cat. no.	Shpg wt	Price/ea
Hydrocarbon Mineral acid	KH-33713-52 KH-33713-62	40 lb (18.2 kg) 40 lb (18.2 kg)		KH-33713-57 KH-33713-67	20 lb (9.1 kg) 20 lb (9.1 kg)	
Formaldehyde HEPA	KH-33713-72 KH-33713-82	45 lb (20.5 kg) 15 lb (6.9 kg)		KH-33713-77 KH-33713-87*	20 lb (9.1 kg) 15 lb (6.9 kg)	

*Fume hoods require only one secondary HEPA filter.

Detect-A-Flow

Detect-A-Flow is a safe, nontoxic, and economical way to check airflow—simply squeeze bottle to release powder in air stream. Unique formulation floats longer than ordinary powders. 2.5-oz bottles.

KH-17782-00 Detect-A-Flow airflow powder. Pack of 3 **/pk**

Hamilton Constant Volume/Bypass Fume Hoods

Easy adjustment of airflow for maximum efficiency

A Hoods

Full-width window, made of laminated safety glass, permits excellent view of the work surface. The full-width sash has a recessed finger lift for easy opening from any point. Remove fumes and vapor efficiently while keeping exhaust volume constant. An outside control lets you position the baffles and direct the flow of air. Rectangular exhaust collar reduces noise and conserves energy. The interior has a white polyresin liner, and the side walls have interior access panels with PVC gaskets.

Benchtop Hoods fit on 30"D work surfaces. Sash has a safety stop with override at 18" height.

Walk-in Hoods are ideal when your application requires roll-in equipment and large laboratory apparatus. Double sashes lift completely for easy access. The open bottom rests on the floor—no work surface or cabinet is required. **Note:** Walk-in hoods require special assembly after delivery. Please call our Application Specialists for details.

What's included: glass window and sash; baffles; exhaust collar; two 120 VAC outlets; one fluorescent light with two tubes and switch; and plugged holes for fixture installation.

Catalog number	Hood width	Overall dimensions (W x H x D)	Shpg wt lb (kg)	Price
Benchtop hoods				
KH-41522-00	36"	23¾" x 36" x 53"	163 (74.0)	
KH-41520-00	48"	48" x 54¼" x 31¼"	694 (315.4)	
KH-41520-10	60"	60" x 54¼" x 31¼"	750 (340.9)	
KH-41520-20	72"	72" x 54¼" x 31¼"	869 (395.0)	
KH-41520-30	96"	96" x 54¼" x 31¼"	1356 (616.3)	
WalKH-in hoods				
KH-41521-00	48"	48" x 90" x 32 7/16"	1003 (455.9)	
KH-41521-10	60"	60" x 90" x 32 7/16"	1090 (495.4)	
KH-41521-20	72"	72" x 90" x 32 7/16"	1246 (566.3)	
KH-41521-30	96"	96" x 90" x 32 7/16"	1934 (879.0)	

B Blowers

Catalog number	Motor	Power VAC	Power Hz	Shpg wt lb (kg)	Price
KH-41520-80	¼ hp	115	60	92 (41.8)	
KH-41520-82	⅓ hp			90 (40.9)	
KH-41520-84	½ hp			96 (43.6)	

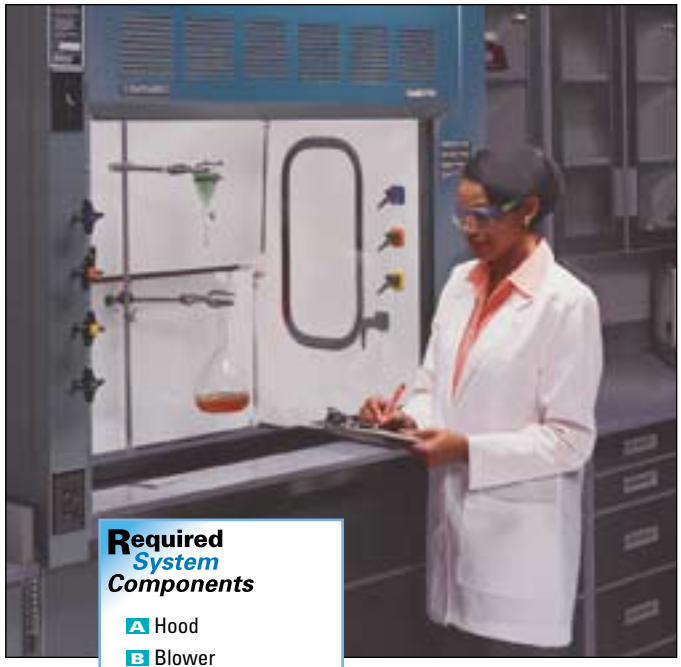
C Fixtures

Catalog number	Description	Shpg wt lb (kg)	Price
Fixtures for water			
KH-41521-50	Hot/cold, front	8 (3.7)	
KH-41521-52	Hot/cold, rear		
KH-41521-54	Distilled, front		
KH-41521-56	Steam, front		
Fixtures for gases, air, and vacuum			
KH-41521-58	Gas, front	5 (2.3)	
KH-41521-60	Air, front		
KH-41521-62	Vacuum, front		
KH-41521-64	Nitrogen, front		
KH-41521-66	Oxygen, front		

D Duct Transitions for Benchtop Hoods only

Lets you transition round duct work into the rectangular exhaust collar of the hood. Choose 8-, 10, -12-, or 14-inch transitions.

Catalog number	For hood size	Transition dia	For duct size	Shpg wt lb (kg)	Price
KH-41520-90	48"	8"	6" x 9"	3 (1.4)	
KH-41520-92	60"	10"	6" x 15"	4 (1.9)	
KH-41520-94	72"	12"	6" x 23"	6 (2.8)	
KH-41520-96	96"	14"	6" x 30"	7 (3.2)	



41521-00

E Work Surfaces for Benchtop Hoods only

Epoxy resin work surfaces measure 30"L x 1¼" thick.

Catalog number	For hood width	Shpg wt lb (kg)	Price
KH-41520-50	48"	110 (49.9)	
KH-41520-52	60"	158 (71.7)	
KH-41520-54	72"	205 (93.0)	
KH-41520-56	96"	253 (114.8)	

F Base Cabinets for Benchtop Hoods only

Sturdy steel cabinets have two hinged doors, flush front panel above the cupboard, recessed toe space, and back service access. Urethane powder coating provides high chemical resistance. Choose standard or acid models. Acid cabinets include a rear vent access, and special ¼" lining that resists chemical spills. Optional vent kit vents from cupboard to fume hood; order separately below.

To fit a 60" hood, order two of the 30" cabinets (41520-60, or -66).
To fit a 72" hood, order two of the 36" cabinets (41520-62, or -68).
To fit a 96" hood, order two of the 48" cabinets (41520-64, or -70).

Catalog number	Cabinet width	Overall dimensions (W x H x D)	Shpg wt lb (kg)	Price
Standard base cabinets				
KH-41520-60	30"	30" x 35¼" x 21⅝"	300 (136.3)	
KH-41520-62	36"	36" x 35¼" x 21⅝"	375 (136.3)	
KH-41520-64	48"	48" x 35¼" x 21⅝"	450 (136.3)	
Acid base cabinets				
KH-41520-66	30"	30" x 35¼" x 21⅝"	280 (127.1)	
KH-41520-68	36"	36" x 35¼" x 21⅝"	275 (124.8)	
KH-41520-70	48"	48" x 35¼" x 21⅝"	350 (159.0)	

KH-41520-72 **Acid cabinet vent kit.** Polyolefin assembly vents from cupboard to fume hood. Shpg wt 10 lb (4.6 kg)

LABCONCO Basic™ 47 and 70 Fume Hoods

Perfect when you need a full-sized ventilated hood to handle small quantities of chemicals

Benefit from renowned Labconco design and quality—while staying within a limited budget. Basic™ hoods enable safe light-duty chemical handling for a broad range of applications. These hoods utilize by-pass airflow design to assure safe continuous ventilation regardless of sash height. All models incorporate advanced design features such as a removable curved air foil and an adjustable two-piece baffle to ensure optimal air routing. Applications should limit long-term exposure to harsh solvents and highly-corrosive vapors.

All fume hoods include a 3/16" thick tempered safety glass counterbalanced sash and a 10" diameter duct collar. Hoods are constructed of glacier white epoxy-coated 16 gauge steel and include a removable front panel and a 4"L x 4½"W utility pass-through port with molded neoprene cover. Hoods do not include a cabinet or work surface—order both from page 731.

Models are available with or without a built-in blower, and in standard or sparKH-proof configurations. Blowers can be mounted any of three ways—within the hood, above the hood, or on the roof of your building.

The 115 VAC models are shipped fully assembled; 220 VAC models require assembly. Cord and plug are not included.

GO to page(s) 729–731

For air flow monitors, sash stops, and other accessories.

48-inch basic steel fume hood 33503-10

Specifications

ISO 9001:2000 SUPPLIER CERTIFIED CE

Fume hood size	47-inch	70-inch
Blower size	⅓-hp motor (XPRF models: ½-hp)	¾-hp motor
Construction	Epoxy-coated steel	
Ductwork size	10"	10"
Fixtures	Optional electrical outlet, air/gas/vacuum/water service connections, and cupsink and faucet—call our Application Specialists for details.	
Light*	One 100-watt incandescent (included)	
Switches (included)	No-blower models: two Standard models: two XPRF models: none	No-blower models: two Standard models: two XPRF models: none
Dimensions† (exterior)	47"W x 48"H x 25"D	70"W x 48"H x 25"D

*47-inch and 70-inch sparKH-proof models have one 100-watt explosion-proof incandescent light. †Models with blower module are 53" H.

Ordering Information

Catalog number	Blower	Power VAC	Power Hz	Shpg wt lb (kg)	Price
47-inch conventional Basic™ fume hoods					
KH-33503-00 KH-33503-05	None‡	115 220	60 50	272 (123)	
KH-33503-10 KH-33503-15	Standard	115 220	60 50	302 (137)	
KH-33503-20 KH-33503-25	Spark proof	115/230 220	60 50	313 (142)	
70-inch conventional Basic™ fume hoods					
KH-33504-00 KH-33504-05	None‡	115 220	60 50	426 (193)	
KH-33504-10 KH-33504-15	Standard	115 220	60 50	451 (205)	
KH-33504-20 KH-33504-25	Spark proof	115/230 220	60 50	469 (213)	

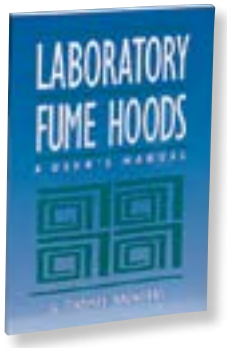
‡Hood must be used with an existing blower only.

Reference Books

Laboratory Ventilation Work Book, Fourth Edition

By D. Burton, 1994. Contains numerous charts, forms, and checklists that describe typical lab hood exhaust and associated HVAC systems.

KH-15503-01 Lab Ventilation Workbook
351 pp. ISBN-0-883992-02-8.



Laboratory Fume Hoods

A User's Manual

By G. Saunders, 1993. Improve your fume hood safety. Learn how to select, install, upgrade, and design hoods. Contains practical information on specifications, design, testing, and usage.

KH-15063-12 Lab Fume Hoods
120 pp. ISBN-1-471-56935-6.

09066-10

LABCONCO Fiberglass 30 Laboratory Hoods

Small fume hoods with big benefits

These 30-inch fiberglass fume hoods save space while still offering many of the features and benefits of the larger hoods. Use these efficient hoods for applications requiring small work space and good fume removal.

One-piece fiberglass interior gives this hood outstanding chemical- and fire-resistance. Preset baffle and by-pass airflow design assure consistent ventilation regardless of sash position. The steel-constructed exterior is glacier white epoxy-coated. Hoods feature a vertical-rising tempered glass safety sash with epoxy-coated aluminum handle.

Available with or without a built-in blower, in standard or explosion-proof configurations. Hoods requires a work surface—order separately on page 731. Complete your fume hood with a variety of accessories, including a storage cabinet, work surface, and an air monitor from pages 729–731. Call our Application Specialists regarding blower sizing and ordering service fixtures, electrical duplexes, and other custom features.

What's included: All models are shipped fully assembled. Hard-wired installations.

Specifications & Ordering Information

ISO 9001:2000 SUPPLIER CERTIFIED

Catalog number	Dimensions (W x H x D) Overall	Dimensions (W x H x D) Interior	Blower	Vapor-proof lamp	Shpg wt lb (kg)	Price
KH-09066-10 KH-09066-20	30" x 48" x 30⅛"	25" x 36" x 22⅝"	None	110 W	96 (44)	
KH-09066-30 KH-09066-40	30" x 48" x 30⅛" 30" x 52" x 30⅛"	25" x 36" x 22⅝"	1/10 hp ⅓ hp	110 W	122 (55)	
KH-09066-50 KH-09066-60	30" x 54" x 30⅛"	25" x 36" x 22⅝"	¼ hp* ⅓ hp*	None	129 (59)	

*Explosion proof—Class I, Group D and Class II, Groups E, F, and G

6-ft floor-mount XL hood 09098-70

LABCONCO Protector® XL™ Floor-Mounted Hoods

Excellent ventilation for large-scale operations

These walk-in hoods accommodate laboratory procedures that require cumbersome equipment and a large work area. Applications requiring large-scale filtration, distillation or extraction apparatus, drums and carboys benefit from the increased height and improved accessibility of these hoods. By-pass airflow design assures proper ventilation regardless of sash position. Hoods are available in a variety of widths and depths to suit your operational requirements.

Tempered safety glass sashes raise smoothly to 58¾" from the floor for easy access. Viewing height is 68⅛" from floor. Adjustable baffles provide a uniform face velocity across the sash opening of the hood. Chemical-resistant white composite interior panel liners reflect light to maximize illumination. Use two provided service fixtures for water and gas, convert one or both to air or vacuum, or add up to six optional service fixtures. Factory-wiring includes fluorescent lights, switches, and a duplex receptacle with ready addition of up to three more electrical duplexes and an airflow monitor. Hoods have attractive glacier white epoxy-coated steel surface. Call our Application Specialists to order fixtures, custom racks, and other accessories.

Specifications & Ordering Information

ISO 9001:2000 SUPPLIER CERTIFIED

Catalog number	Exterior height	Exterior depth	Interior depth	12.81" ID exhaust collars	Fluorescent lamps	Factory wiring 2 service fixtures 1 electrical duplex	Shpg wt lb (kg)	Price
4-ft floor-mount hoods								
KH-09098-50 KH-09098-52 KH-09098-54	95"	39¼" 45¼" 57¼"	30" 36" 48"	1	Two, 25"W ea	115 VAC (20 A)	700 (318) 715 (324) 730 (331)	
5-ft floor-mount hoods								
KH-09098-60 KH-09098-62 KH-09098-64	95"	39¼" 45¼" 57¼"	30" 36" 48"	1	Two, 32"W ea	115 VAC (20 A)	800 (363) 820 (372) 840 (381)	
6-ft floor-mount hoods								
KH-09098-70 KH-09098-72 KH-09098-74	95"	39¼" 45¼" 57¼"	30" 36" 48"	1	Two, 32"W ea	115 VAC (20 A)	950 (431) 970 (440) 990 (449)	
8-ft floor-mount hood								
KH-09098-80	95"	39¼"	30"	2	Four, 25"W ea	115 VAC (20 A)	1400 (635)	

Call our Application Specialists to order fixtures, custom racks, and other accessories.

847-549-7600

LABCONCO Protector® Premier® Fiberglass Fume Hoods

Excellent chemical resistance and high performance air flow control

These ducted, ventilated fume hoods offer you the utmost in personal protection and air quality. Hoods are perfect for use with corrosive and organic materials, but should not be used with radioactive or biological hazards. (See pages 725–726 for our Class I and II biological safety enclosures.)

Bypass hoods produce a lower face velocity than models using separate duct and blower systems, making them ideal for use with fragile equipment or specimens. Bypass hoods draw in room air through the open sash. When the sash is closed, air is drawn through the bypass openings above and below the sash. Bypass hoods are available with a standard blower, an explosion-proof blower, or without a blower. Explosion-proof blowers are UL-listed for Class I, Group D and Class II, Groups E, F, and G.

Interior is constructed of one-piece molded fiberglass. Exterior is constructed of epoxy-coated steel and is glacier white in color.

Customize your hood with optional service fixtures that accommodate air, gas, vacuum, and water lines. Models with fluorescent lights are shipped fully assembled; explosion-proof models come assembled, but lights must be wired in accordance with local codes.

Complete your fume hood with a variety of accessories including blowers, work surfaces, storage cabinets, fire extinguishers, and air monitors from pages 729–731.

72-inch fume hood 09056-16

Specifications

ISO 9001:2000 CERTIFIED SUPPLIER

Fume hood type	48-inch hoods	60-inch hoods	72-inch hoods
Blower specifications (for models including a blower)	⅓-hp motor, fiberglass construction	½-hp motor, fiberglass construction	½-hp motor, fiberglass construction
Ductwork connection size	10"	12"	12"
Fixtures (optional)	Two with factory-installed plumbing lines		
Lights (included)	Two 30-watt fluorescent*	Two 40-watt fluorescent*	Two 40-watt fluorescent*
Switches (included for all but XPRF models)	Two—one for blower, one for lights		

*All explosion-proof (XPRF) models have one 100-watt explosion-proof incandescent light.

Call our Application Specialists for assistance in sizing and selecting system components.

847-549-7600

Ordering Information for as above fume hoods

Blower	Fixtures	Light(s)	Switches	Shipping weight	115 VAC, 60 Hz models		230 VAC, 50 Hz models	
					Catalog number	Price	Catalog number	Price
48-inch fume hoods measure 48"W x 59"H x 33 3/16"D								
Standard	None	Fluorescent	Two	352 lb (160 kg)	KH-09010-16		KH-09009-16	
None	None	Fluorescent	Two	327 lb (149 kg)	KH-09011-16		KH-09020-16	
Explosion-proof	None	Explosion-proof	None†	362 lb (165 kg)	KH-09012-16		—	—
Standard	Two	Fluorescent	Two	362 lb (165 kg)	KH-09013-16		KH-98953-00	
None	Two	Fluorescent	Two	337 lb (153 kg)	KH-09014-16		KH-98953-05	
60-inch fume hoods measure 59"W x 59"H x 33 3/16"D								
Standard	None	Fluorescent	Two	409 lb (186 kg)	KH-09029-16		KH-09045-16	
None	None	Fluorescent	Two	387 lb (176 kg)	KH-09030-16		KH-09046-16	
Explosion-proof	None	Explosion-proof	None†	419 lb (190 kg)	KH-09031-16		—	—
Standard	Two	Fluorescent	Two	419 lb (190 kg)	KH-09032-16		KH-09047-16	
None	Two	Fluorescent	Two	394 lb (179 kg)	KH-09033-16		KH-09050-16	
72-inch fume hoods measure 72"W x 59"H x 33 3/16"D								
Standard	None	Fluorescent	Two	486 lb (221 kg)	KH-09049-16		KH-09067-16	
None	None	Fluorescent	Two	461 lb (210 kg)	KH-09053-16		KH-09068-16	
Explosion-proof	None	Explosion-proof	None†	496 lb (225 kg)	KH-09054-16		—	—
Standard	Two	Fluorescent	Two	496 lb (225 kg)	KH-09055-16		KH-09098-16	
None	Two	Fluorescent	Two	471 lb (214 kg)	KH-09056-16		KH-09082-16	

†Switches for models with explosion-proof components must be furnished by the purchaser to comply with local codes.

Accessory

KH-09070-84 **Sash stop**

LABCONCO Protector® XStream™ Laboratory Hoods

Lab safety that pays for itself

Labconco has combined the finest elements of design and construction to produce hoods for ultimate safety and functionality. XStream's are low face-velocity hoods that are safe, efficient, and extremely durable amid the harsh environment of laboratory fumes. Rigorous research and development produced this design that negates the effects of air turbulence, vortexing, and cabinet air "roll"—the phenomena that limit airflow reduction in conventional hoods.

Return on Investment with the XStream comes not only through the savings realized by running a safe lab and purchasing durable equipment, but through reduced operating expense. XStream's low flow velocities mean less energy waste from hood air exhaust. Using ASHRAE test protocols and OSHA-approved parameters, XStream hoods maintained superior containment even at face velocities of 60 ft/min. The resultant calculated energy savings versus normal 100 ft/min operation assumes 0.001¢/cfm realized over one year of 24 hr/5 day-per-week operation.

Hood width	cfm savings at 60 ft/min vs. 100 ft/min		Total annual dollar savings at 60 ft/min vs 100 ft/min	
	Sash 60% open	Sash 100% open	Sash 60% open	Sash 100% open
4 ft	190	290	760	1,160
5 ft	240	380	960	1,520
6 ft	300	470	1,200	1,880

Enhanced by-pass air flow design ensures consistent ventilation at any sash height. Sashes are 3/16" thick tempered safety glass. Molded composite panel liners and preset baffles are chemical-resistant and contribute to even illumination. The high-efficiency, instant start fluorescent lights are located outside the hood enclosure and are protected by a cowling at the top of the viewing area.

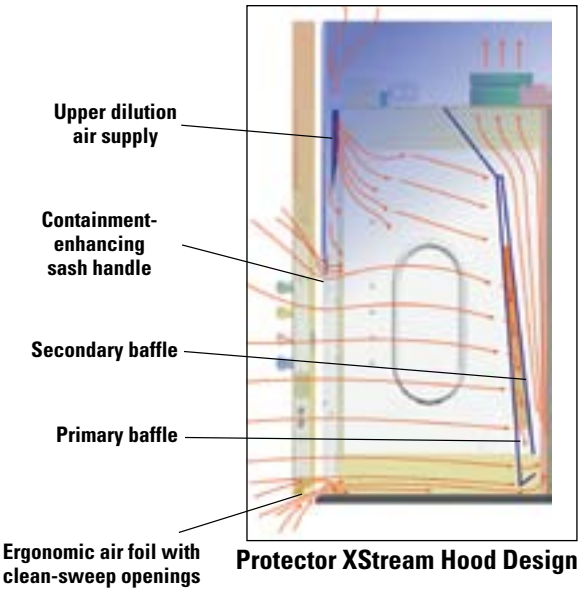
What's included: All models are shipped fully assembled. Cord and plug are not included.

Order work surface, blower, cabinet, and accessories on pages 729–731. Call our Application Specialists to order fixtures, racks, and other custom features.

Technical Info—How it Works:

The XStream utilizes a unique double-baffle design that requires no additional moving parts to move air steadily away from the user to the back of the hood and out the exhaust. Rows of slots in the primary baffle allow fumes to be carried straight back before being pulled down and back up around the secondary baffle by the blower (not included). This initial downward movement eliminates the horizontal "roll" air pattern spanning the width of most hoods.

Further user safety is provided by numerous parallel streams of fresh air which carry fumes away from the user. An interior manifold projects air streams down parallel to the sash plane, carrying chemical fumes down into the laminar flow zone. The sash handle also contains a manifold that projects air to direct fumes away from the user, toward the back of the hood. The patented front air foil completes the laminar flow-inducing design and provides an ergonomic resting place for forearms during prolonged work.



Protector XStream Hood Design

Specifications & Ordering Information

CE ETL US 3 year warranty

Description	Exterior height	Exterior depth	Interior Depth	12.81" ID exhaust collar(s)	Fluorescent Lamps	Service fixtures/ electrical duplex	Shpg wt lb (kg)	115 VAC, 60 Hz		230 VAC, 50 Hz	
								Catalog number	Price	Catalog number	Price
4-foot XStream hood	59"	39¼"	27¼"	1	2 2/1*	0/0	400 (181)	KH-09099-00 KH-09099-42		KH-09099-44 KH-09099-06	
5-foot XStream hood	59"	39¼"	27¼"	1	2 2/1*	0/0	460 (209)	KH-09099-10 KH-09099-52		KH-09099-54 KH-09099-16	
6-foot XStream hood	59"	39¼"	27¼"	1	2 2/1*	0/0	520 (236)	KH-09099-20 KH-09099-22		KH-09099-24 KH-09099-26	
8-foot XStream hood	59"	39¼"	27¼"	1	4 2/1*	0/0	700 (318)	KH-09099-30 KH-09099-32		KH-09099-34 KH-09099-36	

*230 VAC models have 2 service fixtures, but no electrical duplex

Accessory

KH-09070-86 **Sash stop**

LABCONCO Purifier® Delta® Class II, Type A2 Biosafety Cabinets

Protect yourself, your work, and your laboratory environment

Use these cabinets for superb ventilation in the most demanding biological applications. Typical applications include work with agents that require Biosafety Level 1, 2, or 3 containment and for antineoplastic drug preparation. Sophisticated, attention-to-detail design combines with sturdy, flawless construction and rigorous testing to produce the ultimate environment for safe handling.

Cabinets HEPA-filter incoming air to provide a working environment with ISO Class 5 air. The efficiency of the air intake process is enhanced by partial recirculation of cabinet air through the intake HEPA filter and the proprietary Air-Wave™ entry system. Cabinet air not recirculated is discharged through a separate HEPA filter, then returned to the room or exhausted to the outside through an optional canopy connection. When canopy-connected, these cabinets may be used for applications involving minute quantities of volatile toxic chemicals and tracer amounts of radionuclides.

Purifier Delta series cabinets feature a tempered safety glass sash with an anti-racking mechanism and 10°-slant construction to reduce glare and improve ergonomics. Sash fully closes or raises to 18" for easy loading and cleaning. Eye-level ADA-compliant Minihelic pressure gauge is inside-mounted to assure that any leakage is HEPA-filtered. Rest forearms comfortably on radiused air foil. Safety color-coded towel catch maintains constant airflow by preventing wipes from being drawn into the cabinet's internal cavity. One-piece 304 SS work surface is dished for spill containment and removable for easy cleaning. Glare-free fluorescent light. Order with or without germicidal UV light.

Call our Application Specialists for base stand information or for addition of an optional audible/visual low velocity indicator, canopy connection kit, or fixtures.

What's included: Power cord includes plug, excluding 230 VAC models. Cabinet requires initial and periodic on-site certification.

The efficiency of the air intake process is enhanced by partial recirculation of cabinet air through the intake HEPA filter and the proprietary Air-Wave™ entry system.

09095-40

CE NSF ETL US ISO 9001:2000 CERTIFIED SUPPLIER 3 year warranty

115 VAC model

Specifications & Ordering Information

Description	Working opening sash	Exhaust volume (cfm)	Dimensions Overall (W x H x D)	Dimensions Interior (W x H x D)	Electrical VAC	Electrical Hz	Electrical Amps	Shpg wt lb (kg)	Without UV lamp Cat. no.	Without UV lamp Price	With UV lamp Catalog no.	With UV lamp Price
3-foot Delta series cabinet	10"	253 to 279	42" x 62¼" x 31⅝"	36½" x 29½"x 29⅛"	115	60	12	505 (229)	KH-33500-00		KH-33500-20	
	8"	203 to 223			115	60	12		KH-33500-10		KH-26330-00	
					230	50	7		KH-09095-30		KH-26330-05	
4-foot Delta series cabinet	10"	339 to 370	54" x 62¼" x 31⅝"	48½x 29½"x 29⅛"	115	60	12	606 (275)	KH-09095-40		KH-09095-42	
	8"	269 to 296			115	60	12		KH-33501-10		KH-33501-30	
					230	50	7		KH-09095-44		KH-09095-46	
6-foot Delta series cabinet	10"	503 to 554	78" x 62¼" x 31⅝"	72½" x 29½ x 29⅛"	115	60	16	843 (382)	KH-33502-00		KH-09095-60	
	8"	403 to 443			115	60	16		KH-33502-10		KH-09095-62	
					230	50	8		KH-09095-64		KH-09095-66	

Envirco Class II, Type A2 Biosafety Cabinets

26332-00 on optional 26332-10 stand

Protect yourself and your biological materials

Use these well-constructed cabinets to ensure that your biological materials are handled in a ISO Class 5 environment. The negative pressure plenum design also provides complete personal protection. Cabinets are suitable for Biosafety levels 1,2, and 3 per CDC/NIH and NCR criteria. Cabinets are listed under NSF/ANSI Standard 49 and can be used in the preparation of chemotherapeutic drugs per OSHA requirements.

Air inlet and outlet utilize 99.99% efficient HEPA filters. Magnehelic differential pressure gauge monitors filter loading. Angled hinged view screen opens to 19" and closes to normal 8" operating clearance to assure proper containment. Audible alarm system signals cabinet operational readiness and warns of motor/blower failure or exhaust blockage.

Cabinets are all steel with welded, unitized construction. Work area is 16 gauge 304 stainless steel. Exterior is chemically resistant polyurethane enamel. An exhaust thimble connection for outside exhaust is standard on 115V models, optional on 230V models.

What's included: solid-state air speed controller, two fluorescent light tubes, drip-proof duplex electrical outlet, and 9-foot cord with plug. Order optional cabinet stand and UV light below.

Specifications & Ordering Information for class II, type A2 cabinets

5-20P 5-30P 3 year warranty

Catalog number	Description	Face velocity	Dimensions		Electrical					Shpg wt lb (kg)	Price
			Interior (W x H x D)	Overall (W x H x D)	VAC	Hz	Plug type	Blower hp	Speed controller		
KH-26332-00 KH-26332-05	47"	100 to 110 ft/min (30 to 34 m/min)	45½" x 26" x 26"	47" x 62" x 32½"	115 230	60 50/60	NEC 5-20P	¾	Solid state	550 (250)	
KH-26332-10 KH-26332-15	70"*	100 to 110 ft/min (30 to 34 m/min)	68½" x 26" x 26"	70" x 62" x 32½"	115 230	60 50/60	NEC 5-30P	(2) ⅓	Digital	750 (341)	

*Not NSF listed

KH-26332-20 **Cabinet stand,** 47" W x 32" H

KH-26332-21 **Cabinet stand,** 70" W x 32" H

KH-26332-25 **UV Lamp**

SafeAire® BioSafety Cabinets

Performance tested protection for your laboratory

41523-20

- Type A and A/B3
- Face velocities of 80 or 105 ft/min

SafeAire* Class II Biohazard Safety Cabinets protect you, your product, and the laboratory environment from exposure and contamination. Designed for operations requiring Biosafety Level 1, 2, or 3 containment—such as culture analysis and bacteriological or virological applications. HEPA filters (included) are 99.99% efficient on particles of 0.3 µm.

Cabinet interior is manufactured from Type 304 stainless steel and features radiused corners and a removable work surface. An angled ⅜" (9.5 mm) thick glass safety sash is included. All models operate on 110 VAC, 60 Hz. Three- and four-foot–wide models are 15 A; six-foot–wide models are 18 A. Service fixture models enable connection to gas, air, water, or vacuum sources. Select UV lamp models for work area decontamination. Visit our Web Site at www.coleparmer.com to order the required base stand, optional B3 Conversion Kit, or Canopy Kit (for thimble duct connection to outside ventilation).

What's included: All models include ⅓-hp blowers (two on 6-foot models), solid-state speed control, fluorescent lighting, two 115 VAC, 60 Hz outlets, and differential pressure gauge.

Specifications & Ordering Information

3 year warranty

Description	Dimensions (W x H x D)		Service fixtures	UV lamp	Shpg wt lb (kg)	8" sash opening*		10" sash opening†	
	Interior	Overall				Catalog no.	Price	Catalog no.	Price
3-foot cabinet	36¼" x 23½" x 24"	38" x 58⅞" x 30⅛"	N/A 1	N/A 1	475 (215)	KH-41523-00 KH-41523-05		KH-41523-10 KH-41523-15	
4-foot cabinet	48¼" x 23½" x 24"	50" x 58⅞" x 30⅛"	N/A 1	N/A 1	630 (286)	KH-41523-20 KH-41523-25		KH-41523-35 KH-41523-40	
6 foot cabinet	72¼" x 23½" x 24"	74" x 58⅞" x 30⅛"	2 2	N/A 2	960 (435)	KH-41523-50 KH-41523-55		KH-41523-70 KH-41523-75	

*105 ft/min face velocity for 8" sash opening. †80 ft/min face velocity for 10" sash opening.

09114-16

LABCONCO Horizontal Clean Benches

Spacious enclosures ensure particulate-free materials handling

Sterile air benches filter out particles as small as 0.3 µm with 99.99% efficiency. Easily load replacement filters from the front. Benches are constructed of epoxy-coated steel with a plastic-laminate work surface.

Clean benches come fully assembled and include: a prefilter, double gasketed HEPA filter, a filter condition indicator, a pressure gauge; variable-speed motor/blower; grounded 115 or 230 VAC electrical receptacle (74¼"W models include two variable-speed motors and two grounded receptacles); fluorescent lighting; switches for light, blower and electrical receptacle; and an 8-ft, three-wire cord with plug (115 VAC models only). Clean benches with UV light also include a 254 nm UV light and one service fixture (74¼" models have two service fixtures).

Compliance: ETL, Federal Standard 209e

Specifications & Ordering Information

ISO 9001:2000 CERTIFIED SUPPLIER CE

Dimensions (W x H x D)	Power		Clean benches			Clean benches with UV light		
	VAC	Hz	Catalog number	Shpg wt lb (kg)	Price	Catalog number	Shpg wt lb (kg)	Price
38¼" x 48½" x 34¾"	115	60	KH-09114-00	344 (156)		KH-09114-06	344 (156)	
	230	50	KH-09114-05	344 (156)		KH-09114-07	344 (156)	
50¼" x 48½" x 34¾"	115	60	KH-09114-10	333 (151)		KH-09114-16	392 (178)	
	230	50	KH-09114-15	333 (151)		KH-09114-17	392 (178)	
74¼" x 48½" x 34¾"	115	60	KH-09114-20	500 (227)		KH-09114-36	514 (233)	
	230	50	KH-09114-25	500 (227)		KH-09114-37	514 (233)	

Accessories

For clean bench size	Base stands		Replacement prefilter		Replacement HEPA filter	
	Cat. no.	Price	Cat. no.	Price	Cat. no.	Price
38¼"W	KH-09114-71		KH-09114-90*		KH-09114-02	
50¼"W	KH-09114-72		KH-09114-91*		KH-09114-12	
74¼"W	KH-09114-73		KH-09114-91*		KH-09114-22	

*38¼"W and 50¼"W clean benches require two prefilters; 74¼"W clean bench requires three prefilters.

Click Here

GO to ColeParmer.com

Search online for all our new items—product lines are continually updated!

Labconco Vinyl Curtain Kits

Use these curtains as a barrier to air-borne particulates while your horizontal clean bench is not in use. Vinyl curtain attaches to top and bottom of bench opening with nylon-loop fastener, included.

KH-09114-80 **Curtain kit** for 3-foot Purifier horizontal clean bench

KH-09114-81 **Curtain kit** for 4-foot Purifier horizontal clean bench

KH-09114-82 **Curtain kit** for 6-foot Purifier horizontal clean bench

33711-10

MISONIX Compact Laminar Flow Cabinet

Negative pressure at the filter seals prevents leaks into the clean air zone.

This compact laminar flow cabinet features epoxy-coated steel top and aluminum base with acrylic siding. A rear-mounted light box has an 18-watt fluorescent bulb to provide a well-lit work area. Hinged front screen gives you full access to the cabinet, making cleaning and installing equipment easy. Order HEPA filter to remove particles down to 0.3 µm with 99.997% efficiency.

What's included: two-speed fan and 9-ft cord with three-prong plug (European plug on 230 VAC model). Cabinet measures 26⅜"W x 37"H x 22"D.

Specifications & Ordering Information

CE 2 year warranty

Catalog number	Description	Power	Shipping wt	Price
KH-33711-10 KH-33711-15	Laminar flow cabinet	115 VAC/60 Hz 230 VAC/50 Hz	180 lb (81.7 kg)	

KH-33711-60 **HEPA filter**

KH-33711-64 **Stainless steel spill tray**

KH-33711-62 **Replacement prefilters.** Pack of 5

09096-30

LABCONCO Purifier® Vertical Clean Benches and PCR Enclosures

Provide a controlled, particle-free environment

These enclosures feature a 99.99% efficient HEPA filter that removes particles down to 0.3 µm. The built-in blower provides ISO Class 5 (former Class 100) conditions by circulating air through the HEPA filter and down to the work area. A filter condition indicator monitors the differential pressure across the HEPA filter for service/replacement status. Enclosure is designed for benchtop use. The ¼" glass safety sash is angled for easy viewing of samples and reduced glare. Sash has a 9½" opening for safe operation, and swings open to a maximum 18¾" for loading and cleaning. Prop rod holds sash in place. Two utility ports with iris openings permit passage of electrical cords or tubing. Order optional epoxy work surface for added chemical resistance and spill containment. Order telecoping base stands for ergonomic enclosure height adjustment.

Vertical Clean Benches are typically used for plant tissue culture, media plate preparation, electronics inspection, medical device assembly, and pharmacy drug preparation.

PCR Enclosures provide a controlled environment for polymerase chain reaction experiments. The variable digital timer provides UV light exposure continuously or in user-selected increments of 5, 10, 15, 30, 60, 120, or 240 minutes to deactivate DNA and RNA contaminants. When the timer expires, the UV light automatically switches off in preparation for the next experiment.

What's included: prefilter; HEPA filter; variable-speed motor/blower with blower switch; filter condition indicator; one fluorescent light and one UV light with three-way switch (PCR models only); epoxy-coated steel and aluminum interior with two utility ports; and 6½-ft, three-wire cord with plug (230 VAC models have 9½-ft cord without plug).

Specifications & Ordering Information

ISO9001:2000 CERTIFIED SUPPLIER · ETL US · 1 year warranty

Overall dimensions (W x H x D)	Power		Shpg wt lb (kg)	Vertical clean benches		PCR enclosures	
	VAC	Hz		Catalog number	Price	Catalog number	Price
2-ft enclosure width							
24" x 36¾" x 28½"	115 230	60 50	125 (57)	KH-09096-30 KH-09096-40		KH-09096-35 KH-09096-45	
3-ft enclosure width							
36" x 36¾" x 28½"	115 230	60 50	160 (73)	KH-09096-53 KH-09096-55		KH-09096-50 KH-09096-60	

Accessories

Enclosure width	Work surfaces, ¾" thick		Base stands		Replacement prefilters	
	Catalog number	Price	Catalog number	Price	Catalog number	Price
2 ft 3 ft	KH-33505-50 KH-09114-62		KH-09114-74 KH-09114-71		KH-09114-64 KH-09114-66	

UV PCR ISO Class 5 Chamber

HEPA filter removes 99.9% of contaminants down to 0.3 µm

Protect your gel samples from contamination using this UV PCR chamber. HEPA filter 28302-50 (sold separately below) provides your workstation with ISO Class 5 clean air, ensuring continual protection during sample preparation. The seals around the filter are under negative pressure eliminating the risk of leaks.

The PCR chamber features a built-in 254 nm UV sterilizer. Simply place your labware in the cabinet between amplifications and press the UV switch. The UV sterilizer destroys all contaminants in just five minutes and then automatically shuts off.

Compact housing uses minimal bench space and is easily accessible. Stainless steel work surface is easy to clean. **What's included:** prefilter and 9-ft power cord with plug. Order HEPA filter 28302-50 separately.

28302-00

Specifications & Ordering Information

CE 240 VAC model only · 2 year warranty

Catalog number	Dimensions (W x H x D)	Power		Shpg wt lb (kg)	Price
		VAC	Hz		
KH-28302-00 KH-28302-05	24¾" x 35½" x 21¾"	120 240	60 50	133 (60.3)	

KH-28302-50 **HEPA filter**

KH-28302-52 **Prefilter replacement,** Pack of 5

UV PCR Chamber

Isolation chamber provides protection against Beta radiation

This chamber improves the accuracy of PCR and general tissue culture procedures by greatly reducing the chance of airborne contamination during DNA sequencing. Airtight chamber features a built-in UV system rated at 254 nm to decontaminate interior surfaces. Includes fluorescent and UV germicidal lamps.

Removable doors save valuable laboratory countertop space. If a corner door is opened, electrical sensors turn off the UV system.

What's included: flourescent and UV germicidal lamps, and 9-ft power cord with plug.

34750-75

Specifications & Ordering Information

Catalog number	Chamber dimensions	Power		Shpg wt lb (kg)	Price
		VAC	Hz		
KH-34750-75 KH-34750-77	24"W x 28"H x 18"D	110 220	60 50	110 (49.5)	

Fume Hood Airflow Monitors with Visual/Audible Alarm

Verify safe hood operation

Electronic monitors feature lights that indicate normal or alarm status; audible alarm warns of potentially dangerous airflow conditions. Set the alarm at any point between 70 to 250 ft/min. Analog output is 0 to 4 V.

Basic Model 33556-00 has a low flow set point and audible/visual alarms. Surface mountable.

33556-00

Digital Model 33556-06 has an LCD, high and low alarm set points, and relay and analog outputs. Includes flush mount to fit into an electrical receptacle knockout.

What's included: mounting hardware, tubing, sidewall adapter, and a 115 VAC power adapter with a 6-ft cord.

33556-06

Specifications & Ordering Information

CE 2 year warranty

Cat. no.	Description	Range	Dimensions	Price
KH-33556-00 KH-33556-06	Basic model Digital model	70 to 250 ft/min	3⅛"W x 6"H x 1⅞"D 3"W x 5¼"H x ½"D	

Wide-Range Airflow Monitors for Fume Hoods

Linear readings at low-flow conditions

- Simple field calibration
- Multiple alarms—audible, visual, and relay

Use these advanced airflow monitors to assure the safety for all lab personnel. Monitors maintain accurate response even when using low-flow hood conditions. Alarms activate based on sustained low-flow condition. Use pushbuttons to set alarm and perform easy two-point calibration. Monitors will also indicate high sash condition (requires proximity switch, not included) with configurable time delay. Record hood performance using RS-232 connection to computer.

33556-50

Graphic display model 33556-60 shows current flow velocity and provides bar graph depiction of recent hood airflow performance. Calibration instructions appear on-screen. Use night setback to constrain audible alarm usage or use up to three relays to switch other laboratory devices based on hood alarm activation.

33556-60

What's included: mounting bracket for surface mount. Call our Application Specialists if flush mount (requires 2" x 3" opening) is preferred.

Specifications & Ordering Information

CE

Catalog number	Alarm range, ft/min (m/s)	Alarm delay	Face velocity accuracy	Power		Price
				VAC	Hz	
KH-33556-50	30 to 400 (0.15 to 2.0)	5 sec	±10%	120	60	
KH-33556-60	0 to 1000 (0 to 5.0)	0 to 10 sec	±10%	120	60	

09078-00

Blowers

Durable exhausting for hood systems

Chemical-resistant blowers are perfect for use in moderate to highly corrosive conditions. All blowers feature an epoxy-coated metal frame, fiberglass-reinforced polyester housing and a polypropylene impeller.

Light duty blowers are used to exhaust fumes containing low levels of corrosive or organic contaminants. Not recommended for demanding laboratory exhaust systems.

Specifications & Ordering Information for Chemical-Resistant Blowers

Catalog number	Blower type	Motor	Volume cfm@rpm	Power			Shpg wt lb (kg)	Price
				VAC	Hz	A		
KH-09078-00	Standard	⅓ hp	370 @ 373	115	60	5.4	90 (40.9)	
KH-09078-10		½ hp	720 @ 569	115	60	8.4	96 (43.6)	
KH-09078-40		¼ hp	520 @ 962	115	60	4.4	92 (41.8)	
KH-09078-50	Explosion proof (XPRF)	⅓ hp	720 @ 569	115	60	6.4	90 (40.9)	
KH-09078-60		½ hp	960 @ 720	115/230	60	9/4.5	102 (46.3)	
KH-09078-90		¼ hp	700 @ 1173	115	60	4.5	92 (41.8)	

Specifications & Ordering Information for Light Duty Blowers

Power: 115 VAC, 60 Hz, single phase

Catalog number	Description	Collar diameter		Air	Noise level (at 10 ft)	Price
		Inlet	Outlet			
KH-33704-75	350 watt blower	6"	5"	350 cfm	65 dB(A)	
KH-33704-80*	½ hp blower	5"	4"	600 cfm	70 dB(A)	
KH-33704-85*	¾ hp blower	5"	5"	800 cfm	71 dB(A)	

*Also available as 3-phase model. Contact our Applications Specialists for details.

Call our Application Specialists for assistance in selecting a blower.

847-549-7600

FilterMate™ Portable Exhausters

Use these air filtration units to pull airborne fumes and powder through your XPert Balance Enclosure or XVS Ventilation Station (sold on page 717). Filter removes contaminants before returning air to room or exhausting to outside. Specify efficient, high-load filters to remove general organics, particulates (HEPA filter), or both. Adjust airflow to give optimal performance. Order optional filters for formaldehyde and ammonia. HEPA filter models are available for external exhaust using a thimble connection.

FilterMate exhausters have compact, corrosion-resistant housings of white and gray epoxy-coated steel. Rubber feet. Variable-speed blower operation is quiet with a unique perforated exhaust cover. Includes IEC 3-wire electrical cord with plug.

Filtermate™ portable exhauster 09100-60

Filtermate™ Accessories

Catalog number	Description	Price
KH-09101-51	Organic filter cell (12 lb activated carbon media)	
KH-09101-52	Formaldehyde filter cell (14 lb treated carbon media)	
KH-09101-54	Ammonia filter cell (16 lb treated carbon media)	
KH-09101-56	HEPA filter cell, replacement	
KH-09101-58	HEPA filter cell bag, replacement	
KH-09101-61	Work surface, 2' wide, black	
KH-09101-62	Work surface, 3' wide, black	
KH-09101-64	Work surface, 4' wide, black	

Specifications & Ordering Information

Description	Dimensions (W x H x D)	Airflow potential volume velocity (ft/min face velocity)	Exhaust Connection	115 VAC		230 VAC	
				Catalog number	Price	Catalog number	Price
HEPA filter included	14" x 22¾" x 23"	250 cu ft/min (60 to 100 ft/min)	None	KH-09100-60		KH-09100-62	
Carbon-based filter required	14" x 22¾" x 23"	250 cu ft/min (60 to 100 ft/min)	None	KH-09100-65		KH-09100-67	
HEPA filter included	18⅝" x 24¾" x 23"	250 cu ft/min (60 to 100 ft/min)	6" thimble to outside	KH-09100-70		KH-09100-72	
HEPA filter included, carbon-based filter required	15" x 22¾" x 23"	200 cu ft/min (60 to 100 ft/min)	None	KH-09100-75		KH-09100-77	

LABCONCO Accessories

Base Storage Cabinets

- Safely store flammable and corrosive liquids
- Meet all UL, OSHA, NFPA standards

Cabinets are built of corrosion-resistant epoxy-coated steel. Cabinets have four leveling legs and rear vent panels.

Solvent cabinets feature gliding bi-fold, spring-loaded doors that close automatically in case of fire; include one epoxy-coated steel shelf. Standard and acid cabinets have doors that swing out. Acid cabinets feature corrosion-resistant polyethylene-lined interiors.

Work Surfaces are sold separately below. Spillstopper work surfaces keep accidental spills and liquids away from the seam between the hood wall and surrounding countertop.

09114-71 stand for base cabinets

09115-02

09115-06

Cabinets for storing solvents and flammable liquids.

Specifications & Ordering Information

ISO 9001:2000 SUPPLIER CERTIFIED

Catalog number	Description	For hood size	Dimensions (W x H x D)	Shpg wt	Price
Cabinets. Each includes one 8" filler panel to accommodate 30"D of work surface.					
KH-09115-28	Standard		35" x 35¾" x 22"	200 lb (90 kg)	
KH-09115-26	Solvent	28"	35" x 35¾" x 22"	210 lb (95 kg)	
KH-09115-24	Acid		35" x 37" x 22"	262 lb (119 kg)	
KH-09115-00	Standard				
KH-09115-02	Solvent	30"	30" x 35½" to 36¾" x 22"	155 lb (70.8 kg)	
KH-09115-04	Acid				
KH-09115-06	Standard	48"	48" x 35½" to 36¾" x 22"	260 lb (118 kg)	
KH-09115-08	Solvent				
KH-09115-12	Standard	60"	60" x 35½" to 36¾" x 22"	310 lb (141 kg)	
KH-09115-14	Solvent				
KH-09115-18	Standard	72"	72" x 35½" to 36¾" x 22"	360 lb (163 kg)	
KH-09115-20	Solvent				
Work surfaces					
KH-09115-30		48"	48"W x 30"D	110 lb (49.9 kg)	
KH-09115-32	Spillstopper	60"	60"W x 30"D	150 lb (68.1 kg)	
KH-09115-34		72"	72"W x 30"D	205 lb (93 kg)	
KH-09115-46		28"	35"W x 30"D	90 lb (41 kg)	
KH-09115-40	Flat	36"	36"W x 30"D	90 lb (41 kg)	
KH-09115-42	solid	48"	48"W x 30"D	110 lb (49.9 kg)	
KH-09115-44	epoxy	72"	72"W x 30"D	205 lb (93 kg)	
Base stands					
KH-09114-74	24"	24"	24" x 27½" to 33½" x 29¼"	63 lb (28.6 kg)	
KH-09114-71	36"	36"	36" x 27½" to 33½" x 29¼"	72 lb (32.7 kg)	
KH-09114-72	48"	48"	48" x 27½" to 33½" x 29¼"	80 lb (36.3 kg)	
KH-09114-75	60"	60"	60" x 27½" to 33½" x 29¼"	88 lb (40.0 kg)	
KH-09114-73	72"	72"	72" x 27½" to 33½" x 29¼"	96 lb (43.6 kg)	

Labconco Automatic Fire Extinguisher

- Mount directly inside hood for extra safety

Get 24-hour protection against Class A, B, and C fires in fume hoods and storage cabinets. Fire extinguisher automatically goes off if heat melts the fusible link set at 165°F (74°C). Includes a visual pressure gauge for inspection.

Fire extinguisher requires no plumbing or electrical connections and mounts directly to wall of cabinet. Order one extinguisher for 48" and 60" hoods, two for 72" hoods. Rechargeable.

Ordering Information

Cat. no.	Description	Price
KH-98953-10	Fire extinguisher for Basic™ fume hoods on page 721	
KH-09070-60	Fire extinguisher for other Labconco fume hoods	

Sash Stop

Sash stop restricts the sash opening height of your fume hood. With the sash kept in a lowered position, the exhaust volume demand on the blower is reduced. Release the sash stop to open the sash completely for easier hood loading and cleaning.

Ordering Information

Cat. no.	Description	Price
KH-09070-80	Sash stop	